

Investing Through the Cycle – A Framework for Value Discovery and Loss Prevention

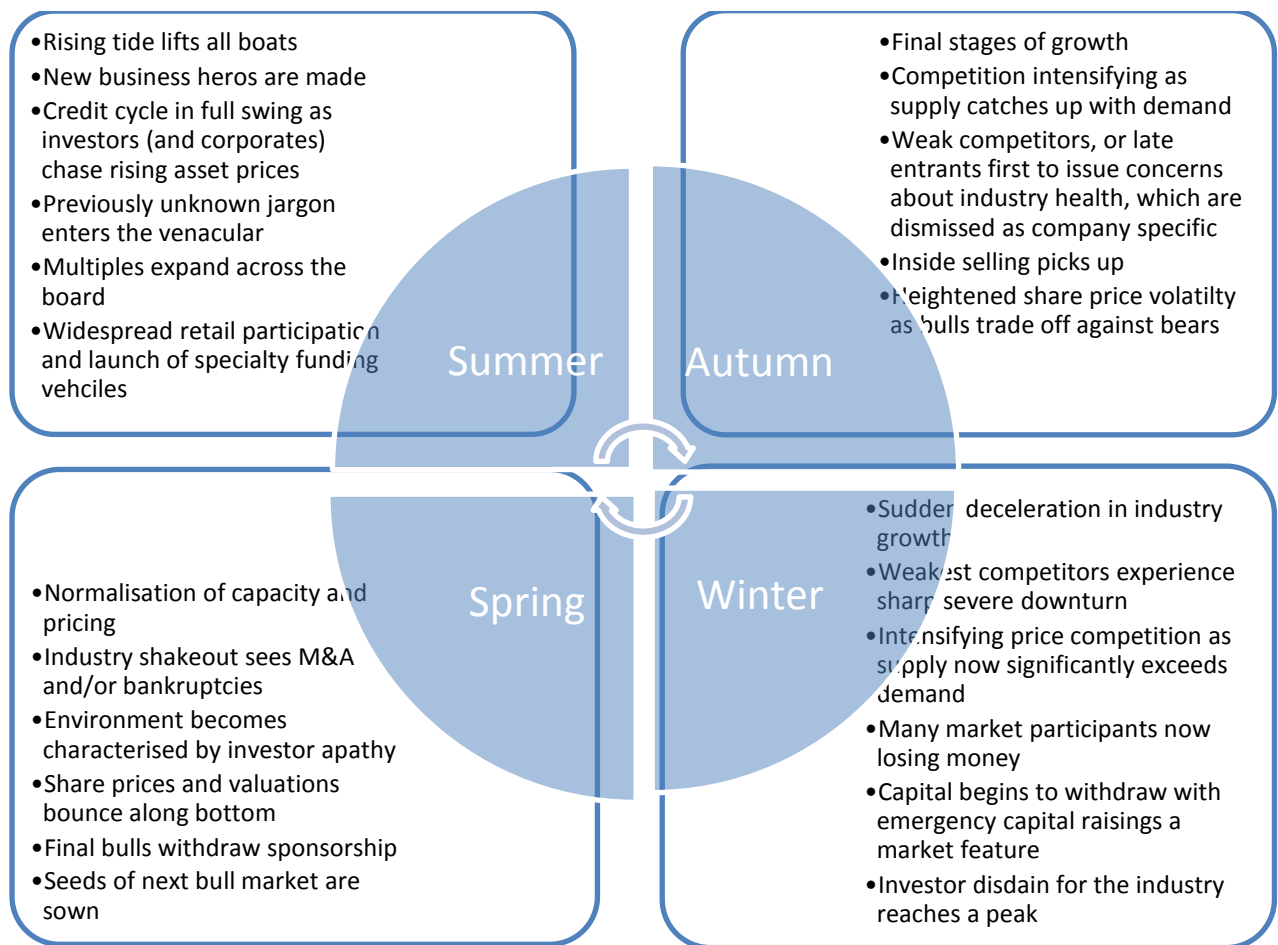
Everything is cyclical. Yes some businesses measured by the amplitude of profits over a 6-8 year period, are more cyclical than others, but the underlying ebb and flow of a business are but one element that determines the cyclical nature of owning common stocks. Investor behaviour is also cyclical, and provides a good dollop of the final equation in determining stock price levels at the top and bottom of cycles. Government regulation is cyclical and will respond to market circumstances with “super-profit taxes” or “government assistance” when it makes for good politics. And finally capital market themselves are cyclical making available great swathes of capital at precisely the wrong time and starving industries of capital at the time when it is likely to earn its highest returns. These layers create an ever-changing and complex picture by which analysts must work to successfully allocate capital. Ultimately some type of framework is required to navigate one’s way through these layers, while a steely mental discipline is also necessary so as not to be drawn into the orbit of a cycle at precisely the wrong time. The bigger the cycle the stronger its gravitational pull.

Some of what matters here is institutional in nature, that is to say the nature of the organisation that one is working for, and some is having the requisite mental models into which to contextualize present events and circumstances. There are no better exponents of this discipline than Charlie Munger and Warren Buffett, whose investment record speaks to this ability. Munger in fact has an excellent speech on the Psychology of Human Misjudgement that is worth looking up, reading and learning.

In this authors experience there appears to be no precise framework for everyone, rather we have to become intimately familiar with our own failings and predispositions and learn to manage around them in a world of uncertainty. No easy task. To further complicate the challenge is the necessity to remain flexible and pragmatic for no cycle is the same and its nature will vary across industries and geographies. For my part though I have put together a framework that is both digital and analogue in form, that is, I try to blend art and science and use this as a backdrop for my capital allocation decisions.

With that preamble the diagram below attempts to distil the key features of a standard investment cycle. The framework uses the analogy of the seasons to describe the cycle’s distinct phases. Each bullet point is worthy of its own short essay, and you will find stories on each in the business pages of the day. Ultimately, a degree of judgement is required in order to recognise the approximate part of the cycle that an industry or a market is in. I have found it helpful to look for clues or things associated with cycle tops and bottoms. The appearance in the mainstream of expert witnesses to events is often a great signal of nearing a top, as are the launch of specialist funding vehicles. Investor apathy and diminished share price volatility being symptomatic of cycle lows, as disinterest in a sector becomes all pervasive.

Investing Across the Cycle – A Stylised Framework



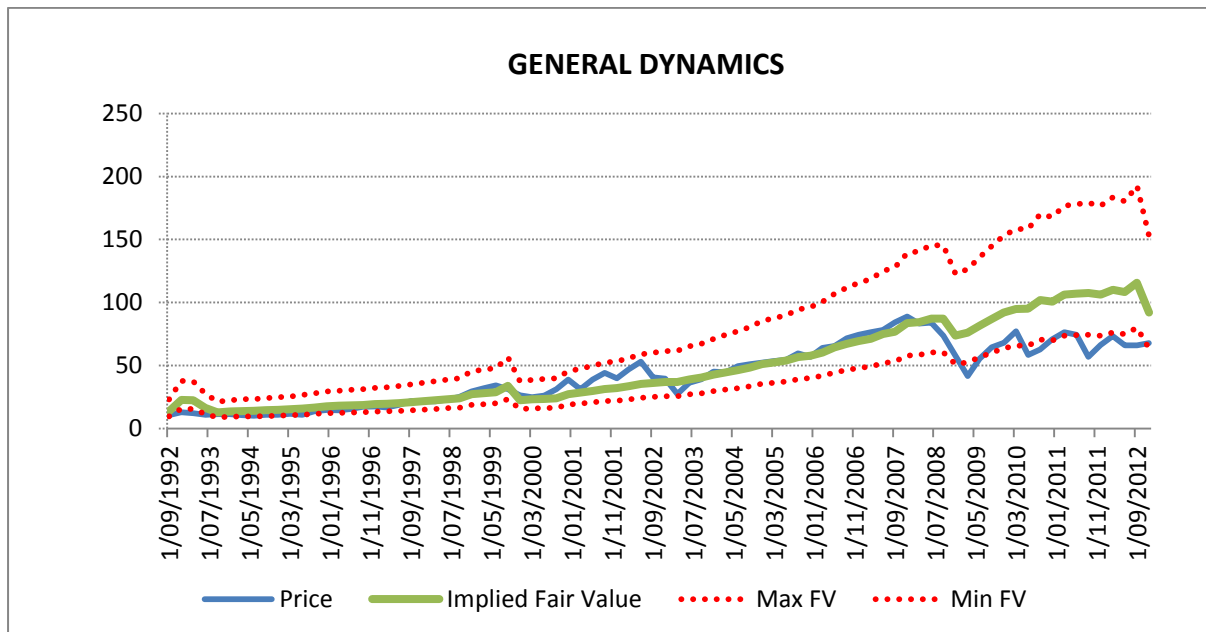
Whilst this analysis is a helpful way of contextualizing an industry or market cycle, companies require yet another framework into which to think about the capital allocation choice. Here we can be more scientific in dealing with assumptions around normalised returns as well as valuations that should be applied. The essence of the approach is to determine normalised, peak and trough returns, and apply a derived fair-value multiple to these earnings. Firstly then let's define a few terms that are going to be used:

- ROE = long-run normalised ROE for a company
- PBR = price-to-book ratio
- PE = price earnings ratio
- t = terminal growth rate
- Ke = cost of equity capital

Given $PBR = \frac{ROE - t}{Ke - t}$, and $PE = PBR/ROE$, we can solve for a fair-value normalised PE ratio.

For example a company with an long-run ROE of 12%, Ke of 8% and terminal growth of 3%, should command a PBR of 1.8x i.e. $(12\% - 3\%)/(8\% - 3\%) = 1.8x$ Now using the normalised ROE of 12%, we

can say the fair value PE is 15x, that is $(1.8/12\%) = 15$. As a test we can show that a company with an $ROE = Ke$ should command a PBR of 1, irrespective of terminal growth, (the Japan dilemma). With that as a backdrop we can apply this algebra to a company.



Here is the US defence conglomerate General Dynamics. The green line (fair value) in the chart represents the derived PE (in this case 14.6x) applied to normalised returns. Normalised returns are simply the long-run ROE (in this case 20.5%) applied to book equity for a given period. Based on GD's last reported set of accounts this model determines fair value as follows:

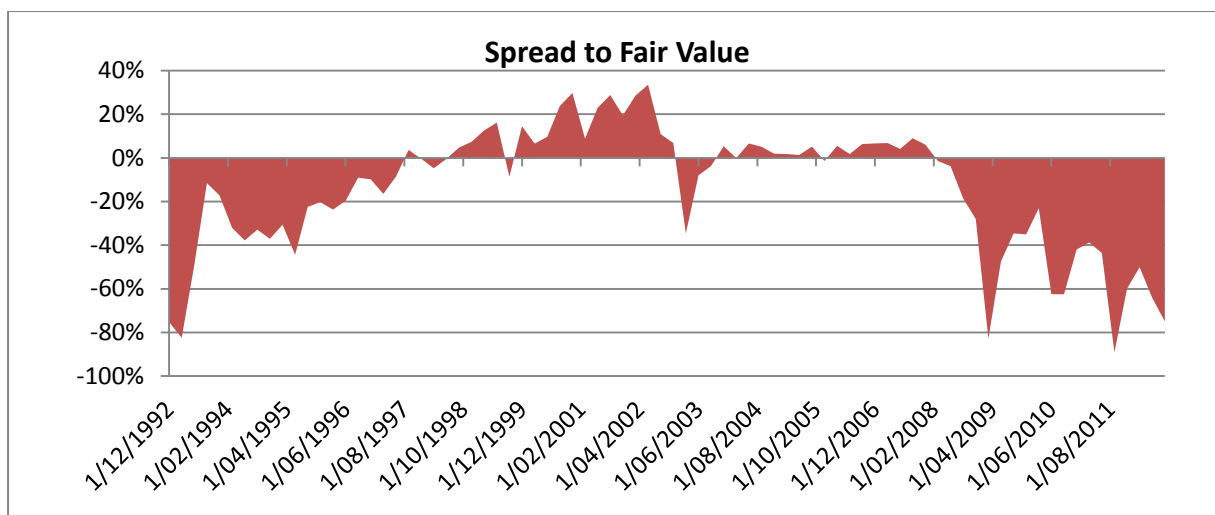
$$(\text{Book equity}) \$11.4\text{bn} \times 20.5\% = \$2.337\text{bn}$$

$$\times \text{PE } (13.9^1) = \$34.1\text{bn} / \text{ shares outstanding } (353\text{mln})$$

$$= \$92/\text{share}.$$

We can calculate this data going back over the review period, in this case 20 years, and observe where a stock has traded relative to its fair value. The red dotted line applies the same calculations using the maximum and minimum 5-year rolling ROE (cycle peaks and troughs). Finally we can chart the history of discount and premium to fair value as shown below.

¹ PE of 13.9 in this case is calculated using a terminal growth rate of 2.5% and Ke of 8.8%



The framework is by no means perfect. It requires ultimately subjective assessment of future returns, cost of equity calculations and assumptions on terminal growth. These are all the same inputs one might use for a DCF calculation, hence similar warnings with this framework should apply. We also need to be aware that K_e today is an imperfect figure for calculating historic fair value as inputs such as risk free rate and beta may change over time. Though rather than being used as a tool for precise forecasting, it can help pose the right questions to be asking of the market at a point in time. In General Dynamic's case above, is the market right in applying historic low valuations to this business given its tremendous track record of growth and returns? Given the necessary cuts that have to happen to US defence spending, possibly yes, but perhaps the market is also overlooking the success of their Gulfstream business unit ahead of a recovery in business jet demand.

Delivering long term returns which are superior to the market averages², ultimately requires an investor to stand apart from the market on some level. The through-cycle framework detailed above is one tool which assists in this endeavour. Contextualizing historic returns and valuations and posing the question of what is embedded in a share price at a point in time provides a convenient platform to undertake more rigorous fundamental analysis on a company. When we combine this tool with our seasonal framework above we have something of both the art and science of successful investing, which no doubt requires a good dollop of both.

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² We consider this measure to be both return and risk based... with a preference for delivering above average returns with average or lower than average levels of risk.